NORTH SEA AND MINIMAL BARRIER CONFIGURATION

December 6, 2005

PURPOSE OF CONFIGURATION

The purpose of this configuration is to provide a deep, marine open water habitat in the northern portion of the Salton Sea and saline habitat in the southern portion of the Sea. The created habitats and stabilized partial Sea will offset the eventual loss of the existing open water and shoreline habitat due to decreased inflows. Air quality management would also be included for exposed playa that may be emissive.

DESCRIPTION OF CONFIGURATION

The North Sea and Minimal Barrier Configuration includes the following major features:

- **Marine Sea:** The Marine Sea would be located in the northern portion of the Salton Sea. A stable shoreline would be maintained at a target elevation of -230 feet mean sea level (msl) with a target salinity between 30,000 to 40,000 milligrams per liter (mg/L). The Marine Sea would preserve much of the Sea's existing shallow water and shoreline habitat.
- **Saline Habitat Complex:** Up to 50,000 acres of habitat would be constructed within the existing seabed. Berms and related facilities would be used to create numerous cells (approximately 1,000 acres each) that contain saline habitat of varying depths, salinities, and structural features, simulating historical conditions. (*See Habitat Summary Sheet for additional information.)*

  Water control facilities would be used to convey water in/out and within the Saline Habitat Complex. Canals would also be constructed to provide brackish water to the Saline Habitat Complex and to enhance circulation and salinity management within the southern portion of the Shoreline Sea area. A pump station would be required to convey higher salinity water from the Brine Sink to a blending structure, where saltwater and freshwater would be mixed to supply brackish water to the Saline Habitat Complex**.** *(See Infrastructure and Conveyance Summary Sheet for additional information.)*
- **Shoreline Sea:** Inflows from the New and Alamo Rivers would be mixed with saline water from the brine pond in the Shoreline Sea area. This mixing of inflows with brine water is needed to achieve the minimum target salinity (20,000 mg/L) for the Saline Habitat Complex. The Shoreline Sea area would also provide connectivity between drains that discharge to the Sea for desert pupfish. Berms and related facilities would be needed to form the Shoreline Sea area.
- **Brine Sink:** The Brine Sink would provide the "outlet" necessary to manage the elevation and salinity in the Marine Sea. The Brine Sink would expand and contract seasonally depending on seasonal inflows.

- **Air Quality Management Area:** Excavated canals would be constructed along the eastern and western edges of the Salton Sea to provide desilted, brackish water for managed vegetation in the Air Quality Management areas. *(See Air Quality Management Summary Sheet for more information).*
- **Water Quality Management:** Water treatment plants may be needed to remove nutrients and selenium from inflows for water supplied to the Marine Sea, Saline Habitat Complex, and Shoreline Sea area.

Main Characteristics After 75 Years:

Based on inflows of 650,000 acre-feet and elevation target of -230 feet msl

Marine Sea:
- Salinity: About 30,000 to 40,000 mg/L
- Surface area: 27,000 acres

Barrier and Perimeter Dikes:
- Barrier located 13 miles north of the middle of the existing Salton Sea
- Length: 10 miles (total)
- Volume: 82.3 million cubic yards

Saline Habitat Complex:
- Salinity: 20,000 to 60,000 mg/L
- Surface area: 50,000 acres

Shoreline Sea:
- Salinity: 20,000 to 35,000 mg/L
- Surface area: 7,000 acres

Brine Sink:
- Salinity: much greater than 200,000 mg/L
- Elevation: -265 to -275 feet msl
- Surface area: 22,000 acres

Air Quality Management:
- Total area of exposed playa 138,000 acres
- Area with irrigated vegetation 69,000 acres (50 percent of total area)

Estimated Capital Cost: $9.8 billion

HOW THE CONFIGURATION WORKS

- Water from the New and Alamo Rivers is divided to supply water for the Saline Habitat Complex area, the Marine Sea, and the Air Quality Management areas.
- A portion of the water from the New and Alamo Rivers is discharged into the Shoreline Sea area. Water from the Brine Sink is blended with these inflows to maintain salinity in the Shoreline Sea area.
- The Shoreline Sea area serves as the inflow to the Saline Habitat Complex.
- Water not used for the Saline Habitat Complex is conveyed to the Marine Sea via open canals along the western shoreline. If the Marine Sea elevation is maintain at an elevation of -230 msl, then pump stations will be needed to lift water to the Marine Sea.
- Water from the Whitewater River flows into the Marine Sea.
- Water is discharged from the Marine Sea to the Brine Sink to maintain targets salinities in the Marine Sea.
- Desilted river water from the New and Alamo Rivers is blended with saltwater to irrigate vegetation on exposed playa that is emissive.
- Canals and other conveyance facilities are designed to carry water to the air quality management and created habitat areas.

WHAT HAPPENS IF AVERAGE ANNUAL INFLOWS ARE GREATER THAN 650,000 ACRE-FEET?

The additional inflow water can be used for more Saline Habitat Complex or be conveyed to the Brine Sink. If the additional inflows are conveyed to the Brine Sink, the size of the Brine Sink would increase. The larger Brine Sink or larger Saline Habitat Complex area will reduce the exposed playa and the amount of air quality management area.

CAN THE NUMBER OR COMPLEXITY OF FACILITIES BE REDUCED?

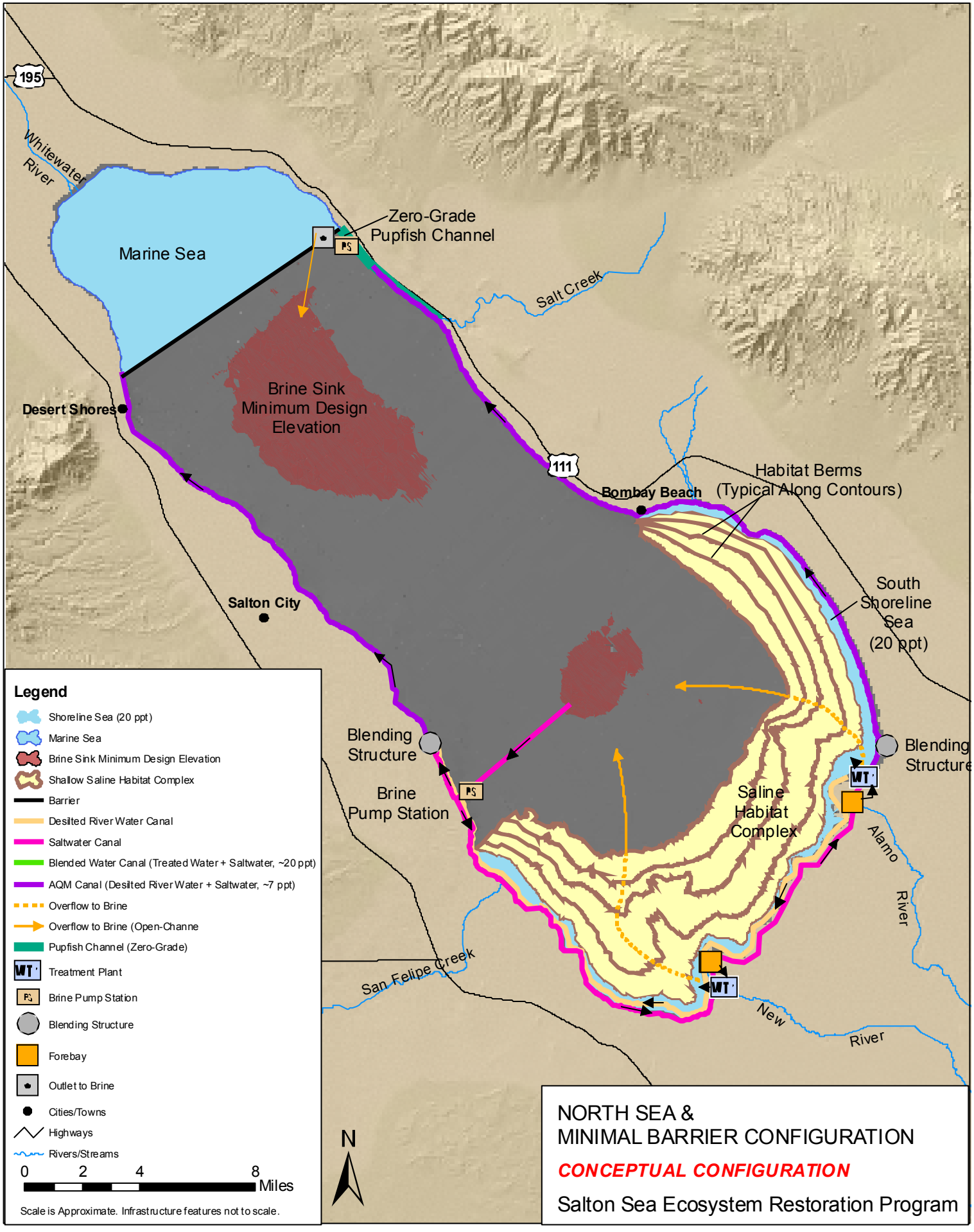
This configuration includes long canals and pump stations to move water from the southern portion of the Sea to the North. By lowering the Marine Sea elevation by up to 10 feet (-240 msl or lower), water may be able to flow by gravity to this area rather than by a pump station and large canals. In addition, barrier costs would be reduced due to its lower height and lower materials quantities.

This configuration could also be simplified by reducing the quantity of Saline Habitat Complex and minimizing non-contiguous areas.

Maintaining the salinity of the Shoreline Sea similar to inflow salinities could also simplify and reduce the number of facilities needed. Maintaining a minimum of 20,000 mg/L salinity requires blending of inflows with salt water from the Brine Sink area.

The additional canals and infrastructure to support the air quality management may be simplified in the future as well. If the exposed playa is not emissive, the need for irrigated vegetation or other dust controls would be reduced.

This configuration could be simplified by eliminating water treatment plants. Upstream controls of nutrients and selenium may reduce the need for water treatment.



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